



## Technical Reference

### Common Refraction Values

BEVERAGES	
Distilled Water	0% Brix
Acidophilus	12 to 20% Brix
Carbonated	5 to 15% Brix
Concentrated Fruit Juices	41 to 68% Brix
Fruit Juice	12 to 17% Brix
Grapes & Wines	14 to 19% Brix
Lactic Acid	12 to 22% Brix
Milk	6 to 17% Brix
Nectars	16 to 23% Brix
Tomato Juice	4 to 9% Brix

FRUITS	
Distilled Water	0% Brix
Apples	11 to 18% Brix
Grapes	7 to 24% Brix
Oranges & Pears	4 to 13% Brix
Strawberries	6 to 12% Brix
Tomatoes	3 to 6% Brix
Tomato Puree	14 to 17% Brix

FOOD	
Distilled Water	0% Brix
Canned Fruits	14 to 29% Brix
Condensed Milk	52 to 68% Brix
Egg Yokes	45 to 50% Brix
Flour Paste, Jams, Jellies & Marmalade	60 to 70% Brix
Honey	58 to 92% Brix
Liquid Sugar	58 to 80% Brix
Mayonnaise	5 to 10% Brix
Olive Oil & Palm Oil	70 to 75% Brix
Paraffin Oil	55 to 60% Brix
Soybean Milk	4 to 13% Brix
Steak Sauce & Tomato Catsup	28 to 38% Brix
Yeast Culture Solutions	3 to 8% Brix

INDUSTRIAL	
Distilled Water	0% Brix
Cutting Oil, Quenching Oil	0 to 9% Brix
Emulsification Solutions	0 to 8% Brix
Soluble Tempering Oil	0 to 20% Brix


### Refractive Index—Brix—Density Conversion Chart

Density <sup>2</sup> (20°C)	Brix % (20°C)	Refractive Index <sup>1</sup> (20°C)
1	0	1.33
1.00965	5	1.34026
1.03998	10	1.34782
1.06104	15	1.35568
1.08287	20	1.36384
1.10551	25	1.37233
1.11898	30	1.38115
1.15331	35	1.39032
1.17853	40	1.39986
1.20467	45	1.40987
1.23174	50	1.42009
1.25976	55	1.43080
1.28873	60	1.44193
1.31866	65	1.45348
1.34956	70	1.46546
1.38141	75	1.47787
1.41421	80	1.49071
1.44794	85	1.50398
1.48259	90	
1.51814	95	
<sup>2</sup> According to Table 109, NBS Circular 440		<sup>1</sup> According to 16th Session of ICUMSA 1974

This table shows the conversion between refractive index respective to density and Brix at 20°C. There is a direct relationship between density and Brix. This conversion is based on table 109 of NBS Circular 440. Refractive index and Brix reading are temperature-dependent.



### Accessory

Model No.	Price	Description
CH-5610	\$145	Reference Book: Handbook of Citrus Bi-Products and Processing Technology 



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